

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2003/002613

**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 C12N 15/63, A61K 38/10, A61K 39/39**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C12N 15/63, A61K 38/10, A61K 39/39

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Delphion, PubMed, 'Peptide vector', 'Autoimmune Diseases', 'CTLA4 Ig'

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 1233066 A2 (CHAE, Y.J.), 21 Aug. 2002. See the whole document.	1-26
Y	US 5885579 A (Bristol-Myers Squibb Co.), 23 Mar. 1999. See the whole document.	1-26
Y	WO 2000 015824 A (KAROLINSKA INNOVATIONS AB), 23 Mar. 2000. See the whole document.	1-26
Y	Zanta, M.A. et al., 'Gene delivery: A single nuclear localization signal peptide is sufficient to carry DNA to the cell nucleus', Proc. Natl. Acad. Sci. USA, Vol.96(1), pp.91-96, Jan. 1999. See the whole document.	1-26
Y	Finck, B.K. et al., 'Treatment of murine lupus with CTLA4Ig', Science, Vol.265(5176), pp.1225-1227, 1994. See the whole document.	1-26
Y	Takiguchi, M. et al., 'CTLA4IgG gene delivery prevents autoantibody production and lupus nephritis in MRL/lpr mice', Life Sci., Vol.66, pp.991-1001, 2000. See the whole document.	1-26

 Further documents are listed in the continuation of Box C. See patent family annex.

- \* Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  22 JULY 2004 (22.07.2004)	Date of mailing of the international search report  23 JULY 2004 (23.07.2004)
Name and mailing address of the ISA/KR   Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer  LEE, CHUNG HO Telephone No. 82-42-481-8160



## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2003/002613

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Mageed, R.A., Prud'homme, G.J., 'Immunopathology and the gene therapy of lupus', Gene Ther., Vol.10(10), pp.861-874, May 2003. See the whole document.	I-26
A	Strand, V., 'Monoclonal antibodies and other biologic therapies', Lupus, Vol.10(3), pp.216-221, 2001. See the whole document.	I-26
A	Ueda, H. et al., 'Association of the T-cell regulatory gene CTLA4 with susceptibility to autoimmune disease', Nature, Vol.423(6939), pp.506-511, 29 May 2003. See the whole document.	I-26

**INTERNATIONAL SEARCH REPORT**

International application No. PCT/KR2003/002613
--

**Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)**

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of :

## a. type of material

- a sequence listing  
 table(s) related to the sequence listing

## b. format of material

- in written format  
 in computer readable form

## c. time of filing/furnishing

- contained in the international application as filed  
 filed together with the international application in computer readable form  
 furnished subsequently to this Authority for the purposes of search

2.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

3. Additional comments:

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
PCT/KR2003/002613

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1233066 A2	21 Aug 2002	US 20030096738 A1 KR 1053621 A JP 2002291492 A2 CN 1374321 A	22 May 2003 25 Jun 2001 08 Oct 2002 16 Oct 2002
US 5885579 A	23 Mar 1999	WO 1993000431 A1 KR 0238712 B1 EP 0757099 A2 JP 9202800 A2	07 Jan 1993 15 Jan 2000 05 Feb 1997 05 Aug 1997
WO 2000015824 A1	23 Mar 2000	US 6720310 A EP 1114172 A1 JP 2002525066 T2 AU 3178499 A1	13 Apr 2004 11 Jul 2001 13 Aug 2002 03 Apr 2000